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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,898	12/31/2003	Yasuro Shobatake	040301-0641	6938
22428 7590 12/29/2006 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER VU, THONG H	
			ART UNIT 2616	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	
3 MONTHS			12/29/2006	
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/747,898

Applicant(s)

SHOBATAKE, YASURO

Examiner

Thong H. Vu

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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1. Claims 1-4 are pending.
2. This application claimed the priority of 9/18/1998.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Picazo, Jr. et al [Picazo 5,432,907] in view of Gorman et al [Gorman 4,497,980].

3. As per claim 1, Picazo discloses A message relay device connected with a plurality of routing processing devices (i.e.: routers) for carrying out connection-less communications (i.e.: broadcast, roaming, multicast) for relaying a message from one routing processing device to another routing processing device [Picazo, WAN, LAN, routers, Token Ring, FDDI, col 5 line 30-col 6 line 62], the message relay device comprising:

a plurality of interface units provided in correspondence to the routing processing devices [Picazo, routers, col 18 lines 20-57]; and

a switching unit connecting the plurality of interface units within the message relay device using optical rings capable of transmitting optical signals in a plurality of wavelengths by multiplexing the optical signals [Picazo, multiplexer, col 13 lines 12-25];

wherein each interface unit transmits an input message entered from a corresponding routing processing device of each interface unit, through a communication channel in the optical rings toward a target interface corresponding to a relaying target routing processing device of the input message which is formed by using a wavelength determined according to the input message [Picazo, TokenRing and FDDI, col 15 lines 54-65], and receives an output message to be outputted to the corresponding routing processing device of each interface unit from the switching unit by selectively intercepting (i.e.: filter) a wavelength uniquely allocated to each interface unit in the optical rings [Picazo, active filter condition, select mode, col 25 line 50-col 26 line 35;]

However Picazo does not explicitly detail a number of wavelengths (i.e.: signal) that can be received at each interface unit is set to be greater than a number of wavelengths that can be transmitted from each interface unit.

It was well-known in the prior art that a switch can accepted a receive signal greater than the transmit signal [Gorman, col 8 lines 41-50]

Therefore it would be obvious to an ordinary skill in the art at the time the invention was made to incorporate the signal that can be received at each node is set to be greater than a number of wavelengths that can be transmitted from each node as taught by Gorman into the Picazo's apparatus in order to utilize the router/switch process. Doing so would provide an efficiency performance of bridges/switched/routers in large network [Picazo, col 4 lines 456-61].

4. Claim 4 contains the identical limitations set forth in claim 1. Therefore claim 4 is rejected for the same rationale set forth in claim 1.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Picazo, Jr. et al [Picazo 5,432,907] in view of Ho [6,148,3432]

5. As per claim 3, Picazo discloses A message relaying method by a message relay device, connected with a plurality of routing processing devices for carrying out connection-less communications, and having a plurality of interface units provided in correspondence to the routing processing devices and a switching unit connecting the plurality of interface units within the message relay device, for relaying a message from one routing processing device to another routing processing device [Picazo, WAN, LAN, routers, Token Ring, FDDI, col 5 line 30-col 6 line 62], the message relaying method comprising:

at each interface unit, checking an input message entered from a corresponding routing processing device of each interface unit according to a protocol used in the input message [Picazo, handle different physical media and protocols, col 20 lines 19-55],

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transmitting the input message stored in the buffer to the switching unit while maintaining a protocol format of the input message as entered, and receiving an output message to be outputted to the corresponding routing processing device of each interface unit from the switching unit [Picazo, emulator protocol, col 22 lines 19-57]; and

at the switching unit, internally switching messages transmitted from one interface unit to another interface unit using the bypass communication channel [Picazo, bypass mode, col 10 lines 16-35].

Picazo also discloses the ability to selectively bypass the bridge/router function (i.e.: bypass channel within the switching unit) gives a network designer the ability to design a network [Picazo, col 3 lines 26-40, Fig 5B].

However Picazo does not explicitly detail assigning to the input message an internal identifier which is an identifier defined within the message relay device for identifying at least a target interface unit corresponding to a relaying target routing processing device of the input message, storing the input message in a buffer until a bypass communication channel within the switching unit from each interface unit toward another interface unit which is capable of transmitting messages assigned with the internal identifier becomes available at the switching unit,

It was well-known in the art that a database could provide an internal ID or internal address [see Christie, Ho, Pascucci references]

Therefore it would be obvious to an ordinary skill in the art at the time the invention was made to incorporate a database or assigns an internal ID which defined

within the device database [Ho, col 5 lines 22-43] as taught by Ho into Picazo's apparatus in order to utilize the bridge/router database process. Doing would provide an efficiency performance of bridges/switched/routers in large network by identifying a message stored in a buffer.

6. Claim 2 contains the identical limitations set forth in claim 3. Therefore claim 2 is rejected for the same rationale set forth in claim 3.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 2-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Nagami et al [Nagami 6,598,080 B1].

7. As per claim 3, Nagami discloses A message relaying method by a message relay device, connected with a plurality of routing processing devices for carrying out connection-less communications, and having a plurality of interface units provided in correspondence to the routing processing devices and a switching unit connecting the plurality of interface units within the message relay device, for relaying a message from

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one routing processing device to another routing processing device, the message relaying method comprising:

at each interface unit, checking an input message entered from a corresponding routing processing device of each interface unit according to a protocol used in the input message [Nagami, bypass pipe management table with input/output ports, col 17 line 64-col 18line 19, Fig 17],

assigning to the input message an internal identifier which is an identifier defined within the message relay device for identifying at least a target interface unit corresponding to a relaying target routing processing device of the input message [Nagami, message relay, col 19 lines 50-55; interstate for a pipe ID, col 18 lines 40-61]

storing the input message in a buffer until a bypass communication channel within the switching unit from each interface unit toward another interface unit which is capable of transmitting messages assigned with the internal identifier becomes available at the switching unit [Nagami, dedicated VC is available, col 18 line 63-col 19 line 10],

transmitting the input message stored in the buffer to the switching unit while maintaining a protocol format of the input message as entered, and receiving an output message to be outputted to the corresponding routing processing device of each interface unit from the switching unit [Nagami, registered in the input and the output side, col 19 lines 10-24]; and

at the switching unit, internally switching messages transmitted from one interface unit to another interface unit using the bypass communication channel



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[Nagami, the router carryout the ATM transfer with internal state using bypass pipe, col 18 lines 1-19].

8. Claim 2 contains the identical limitations set forth in claim 3. Therefore claim 2 is rejected for the same rationale set forth in claim 3.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagami et al [Nagami 6,598,080 B1] in view of Gorman et al [Gorman 4,497,980].

9. As per claim 1, Nagami discloses A message relay device connected with a plurality of routing processing devices (i.e.: routers) for carrying out connection-less communications (i.e.: broadcast, roaming, multicast) for relaying a message from one routing processing device to another routing processing device, the message relay device comprising:

a plurality of interface units provided in correspondence to the routing processing devices [Nagami, routers, col 17 liens 25-38]; and

a switching unit connecting the plurality of interface units within the message relay device using optical rings capable of transmitting optical signals in a plurality of

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wavelengths by multiplexing the optical signals [Nagami, message relay, col 19 lines 50-55; optical fiber, col 11 line 56; multiplexing point, col 41 line 55];

wherein each interface unit transmits an input message entered from a corresponding routing processing device of each interface unit [Nagami, routing table registration, col 18 lines 1-19],

through a communication channel in the optical rings toward a target interface corresponding to a relaying target routing processing device of the input message which is formed by using a wavelength or packet length determined according to the input message [Nagami, a control unit and judgment unit can set up an input/output according to the packets or wavelength have been entered, col 9 lines 36-54], and

receives an output message to be outputted to the corresponding routing processing device of each interface unit from the switching unit by selectively intercepting (i.e.: extracting) a wavelength uniquely allocated to each interface unit in the optical rings [Nagami, extracting cells or wavelength, col 10 lines 31-48],

However Nagami does not explicitly detail

a number of wavelengths (i.e.: a length packet) that can be received at each interface unit is set to be greater than a number of wavelengths that can be transmitted from each interface unit.

It was well-known in the prior art that a switch can accept a receive signal greater than the transmit signal [Gorman, col 8 lines 41-50].

Therefore it would be obvious to an ordinary skill in the art at the time the invention was made to incorporate the signal that can be received at each node is set to

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be greater than a number of wavelengths that can be transmitted from each node as taught by Gorman into the Nagami's apparatus in order to utilize the router/switch process.

Doing so would provide an efficiency performance of bridges/switched/routers in large network.

10. Claim 4 contains the identical limitations set forth in claim 1. Therefore claim 4 is rejected for the same rationale set forth in claim 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thong Vu*, whose telephone number is (571)-272-3333. The examiner can normally be reached on Monday-Thursday from 6:00AM- 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Failed Lynn*, can be reached at (571) 272-2092. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Thong Vu*  
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